



**STANDARDIZATION, EVALUATION, AND  
QUALITY ASSURANCE FOR US AIR FORCE  
IMAGERY PRODUCTION FACILITIES**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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Pages: 4

Distribution: F: X; AUL/LSE (1);  
HQ AIA/DOO (2); AIA TSS/ADW (2)

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AFI 14-202, 28 March 1994, is supplemented as follows: This supplement states policies and assigns responsibilities for the Air Intelligence Agency (AIA) SENTINEL SIGMA Program which is directed by the USAF SENTINEL SIGMA Program. The USAF SENTINEL SIGMA Program is an Air Force program to maintain or enhance the quality assurance (QA) standards of photographic, electro-optical, infra-red-enhancers, recording media and systems, digital production systems, and support systems. This instruction applies to all organizations involved in the acquisition, operation, maintenance, evaluation, and improvement of imagery data sensors, processors, and support systems. This supplement applies to AIA-gained National Guard (ANG) and Air Force Reserve units.

**1.2.1. (Added) AIA Central Calibration Facility Program:**

**1.2.1.1. Collections Operations Branch (HQ AIA/DOOO):**

1.2.1.1.1. Develops directives, initiates, and provides guidance concerning sensitometric standardization as it applies to assigned imagery production, intelligence, and ANG units.

1.2.1.1.2. Attends working groups, conferences, and meetings in support of the Central Calibration Facility (CCF) program.

1.2.1.1.3. Conducts periodic visits to AIA processing facilities and service ANG units.

1.2.1.1.4. Assigns 480 Intelligence Group (480 IG) and 27 Intelligence Squadron Visual Information Branch (27 IS/ PPP) as CCF manager for AIA.

1.2.1.1.5. Oversees funding and allocation of necessary resources to support the program.

1.2.1.2. The 480 IG and 27 IS/PPP:

1.2.1.2.1. Designate a primary and alternate AIA CCF monitor and in writing notify HQ AIA/DOOO and HQ USAF/CCF of the assignment.

1.2.1.2.2. Manage the command sensitometer and densitometer calibration program to ensure standardization within AIA and all participating units.

1.2.1.2.3. Annually calibrate the AIA CCF standard sensitometer using a calibration kit sent from the Eastman Kodak Company.

1.2.1.2.4. Calibrate unit sensitometers upon receipt. Units send their sensitometers to AIA CCF at least 60 days prior to the annual certification due date. The AIA CCF provides results of each calibration to the unit and a copy to the Air Force CCF.

1.2.1.2.5. Maintain records of serviced unit calibrations for 3 years.

1.2.1.2.6. Set up and maintain baseline standards for calibration of all digital output devices.

1.2.1.2.7. Provide information over the telephone (info line) to assist users.

1.2.1.2.8. Attend working groups, conferences, and meetings conducted in support of the CCF program and related activities.

1.2.1.3. Photographic Imagery Production Facilities:

1.2.1.3.1. Designate a primary and alternate CCF monitor and in writing notify the 480 IG and 27 IS/PPP of the assignments.

1.2.1.3.2. Coordinate sensitometric and densitometric calibration activities with the AIA CCF.

1.2.1.3.3. Designate and maintain a unit primary standard sensitometer. Annually, send the primary sensitometer to the AIA CCF for calibration. Send the sensitometer at least 60 days prior, but no later than 90 days prior, to certification due date.

1.2.1.3.4. Attend working groups, conferences, and meetings in support of the CCF program.

2.1.4. (Added) AIA Quality Assurance Program:

2.1.4.1. HQ AIA/DOOO:

2.1.4.1.1. Manages the Quality Assurance (QA) Program for imagery production facilities.

2.1.4.1.2. Assigns the 480 IG and 27 IS/PPP as QA monitor for AIA.

2.1.4.2. The 480 IG and 27 IS/PPP:

2.1.4.2.2. Monitor the QA program for AIA.

2.1.4.2.3. Review unit QA operating procedures and directives for compliance with applicable Air Force instructions, policies, and technical orders (TO).

2.1.4.2.4. Assist units in resolving problems related to photographic QA, to include, but not limited to, standardization, equipment, and materials.

2.1.4.2.5. Attend working groups, conferences, and meetings in support of the QA program and related activities.

2.1.4.2.6. Conduct annual visits to AIA imagery production facilities. These visits acquaint monitors with each annexation's mission, equipment, QA procedures, and personnel; provide on-site recommendations for improved procedures; and share information of value with other units.

2.1.4.2.7. Conduct biennial on-site visits to the Armament Recording Units and ANG units.

2.1.4.2.8. Provide informal out-briefings upon completion of each visit.

2.1.4.3. All Imagery Processing Facilities:

2.1.4.3.1. Designate a primary and alternate QA monitor and in writing notify the 480 IG and 27 IS/PPP of these assignments.

2.1.4.3.2. Justify in writing out-of-cycle visit requests to the 480 IG/CC.

2.1.4.3.3. Coordinate QA functions such as standards, directives, technical questions, and QA-related topics through the AIA QA monitor.

2.1.5. Nominal Performance Standards:

2.1.5.1. Air Combat Command Intelligence Systems Branch (ACC/INXR):

2.1.5.1.1. ACC/INXR is the point of contact for this program.

2.1.5.1.2. This is an Air Force program designed to monitor the sensor performance of all reconnaissance systems. It's goal is to derive an objective measurement of image quality vice purely subjective evaluations.

2.1.5.2. The 480 IG and 27 IS/PPP:

2.1.5.2.1. The 480 IG trains all participating units and certifying individuals in image quality evaluation using the Vie-Mag program. Training is conducted annually during the QA visits.

2.1.5.2.2. When appropriate, evaluate representative imagery data and, or, products sent from using activities to help identify problems of imagery product degradation. Provide prompt feedback to using activities so an immediate investigation of the problem and corrective action can be taken. Keep records on specific system performance to evaluate trends.

2.1.6. Miscellaneous:

2.1.6.1. Work Place Environmental Standards for Sensor System Facilities:

2.1.6.1.1. Each unit establishes minimum environmental standards based on mission requirements, operational theater situation, and local government policies. The sophistication of the environmental control systems must be consistent with the degree of imagery data and product quality required.

2.1.6.1.2. Critical operations such as system assembly, calibration, evaluation, and imagery data processing and production must be accomplished under the cleanest possible working conditions to ensure weapon system reliability, availability, and performance. Some facilities can satisfy their mission by setting up clean work stations; others require controlled area environments or stringent clean-room facilities.

## Attachment 2 (Added)

## EQUIPMENT CERTIFICATION AND STANDARDIZATION CHART

EQUIPMENT	FREQUENCY	TEST REFERENCE	APPLICABLE FORMS
Continuous Automatic Processor	Within 30 minutes prior to mission; every 2 hours during production.	TO 10-1-6-2, <i>Instrument Manual of the Quality Control System</i> .	AF Form 1600, <b>Sensitometry Worksheet</b> . AF Form 1601, <b>Spray Processor Temperature and Pressure Log (LRA)</b> . AF Form 1605, <b>Equipment Certification (LRA)</b> .
Continuous Printer	Before each use.	TO 10-1-6-2.	AF Form 1605.
pH Meter	Each use.	TO 10-1-6-2.	AF Form 1605.
Sensitometer	Before and after each use.	TO 10-1-6-2.	AF Form 1600. AF Form 1605.
Densitometer	Daily, if used; and at least monthly.	TO 10-1-6-2.	AF Form 1605.
Titler	Prior to use.	TO 10-1-6-2. Manufacturers' Manuals.	AF Form 1605. AF Form 1604, <b>Titling Checklist (LRA)</b> .
Thermometer	Weekly, check against standard calibrated thermometer.	TO 10-1-6-2.	AF Form 1605.
Balance and Scale	Yearly.	TO 10-1-6-2. Manufacturers' Manuals.	AF Form 1605.
Argentometer	Prior to use.	TO 10-1-6-2. Manufacturers' Manuals.	AF Form 1605.
Tachometer	Monthly.	Manufacturers' Manuals.	AF Form 1605.
Flow Meter	Semiannually.	TO 10-1-6-2.	AF Form 1605.
Mission Handling Equipment	Prior to mission.	TO 10-1-6-2. Equipment TO.	AF Form 1605.

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